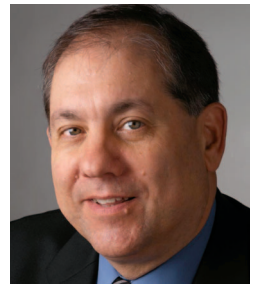
The Medication-Use Process and the Importance of Mastering Fundamentals

F. Randy Vogenberg, RPh, PhD; and David Benjamin, PhD

Welcome to *P&T*'s new law column! This periodic feature will offer current and concise information based on real-world situations facing licensed health care professionals, pharmacists, and physicians and their support personnel. As Editor of the column, I plan to cover some of the failures in our health care system and the ongoing legal problems across the spectrum of clinical practice in the 21st century. Articles will provide analyses of key trends, legislation, and case law experience; answer readers' questions; and include quick-reference tables and figures to remind practitioners how to keep patients safe and, most importantly, to do no harm.



F. Randy Vogenberg, RPh, PhD

In this issue of *P&T*, Dr. Benjamin and I revisit common errors that can lead to legal complaints when the practitioner loses focus while dispensing prescription drugs during the medication-use process.—*F. R. Vogenberg, Editor*

Background

It was 1986 and the Boston Red Sox were playing the New York Mets in the World Series. Game 6 was in the 10th inning when Mets player Mookie Wilson hit a ground ball toward first base and Red Sox first baseman Bill Buckner went to field it to end the inning. Instead, the ball went under Buckner's glove, through his legs, and into the outfield, allowing the Mets to win that game and to come back the next day to win the World Series.

That error cost the Red Sox the World Series and forever labeled Bill Buckner as the "goat" of the game, because he did not get his glove down on the ground, as taught to all Little Leaguers when they learn the fundamentals of fielding a ground ball.

Today, health care delivery organizations, along with the pharmacy industry itself, are plagued by a similar set of circumstances. Errors are occurring because pharmacists are not following the fundamentals of filling prescriptions and dispensing medications. Pharmacy staff members are confusing drugs because of their sound-alike and look-alike names, and they are confusing brand-name products with generic bands—all because basic precautions are not being followed. This chronic problem led to the formation of the Institute for Safe Medication Practices (ISMP) more than 35 years ago.

Common Errors in Contemporary Court Cases

In contrast to how malpractice (tort) claims have been handled in recent decades, nearly all of these claims in the past were settled out of court without a jury trial. Today, part of the reason for the desire to avoid a trial is the unpredictability of jury opinions and verdicts, as we've seen in some controversial, high-profile cases such as the O. J. Simpson trial in 1994 and the Casey Anthony trial in 2011. The Pharmacists Mutual Insurance Claims Study 2011 (which did not involve a medication error) addresses two main types of claims: mechanical (wrong drug, strength, directions, or counseling) and personal injury.[1] Eighty percent of reported claims have consistently pertained to mechanical errors. Although counseling claims (involving cognitive, or intellectual, errors) have increased, they have been handled primarily as disciplinary matters by boards of pharmacy.

For both physicians and pharmacists, the two main types of professional malpractice claims related to the prescribing of drugs are either cognitive errors of omission or errors that occur during the medication-use (MU) process. (A future column will explore the judicial process.)

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The multistep process in which a drug travels from the pharmacy to the patient consists of (1) prescribing, (2) transcribing and documenting, (3) dispensing, (4) administering, and (5) monitoring. For example, the MU process in a previously paper-based hospital setting that is typically computerized today is a complicated system that involves almost 20 steps; consequently, there are approximately 20 opportunities to make an error. These errors, including the classic "five wrongs"—the wrong drug, the wrong dose, the wrong route, the wrong time, and the wrong patient—are still being made. In addition, staff members are still failing to adequately monitor or follow up on a patient's response to a specific agent.

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The well-known studies of Bates[2] and Leape[3] show that most errors have occurred during physician ordering of a drug (39%–49%), nursing administration (26%–38%), transcribing (11%–12%), and dispensing in the pharmacy (11%–14%). Steps to identify, analyze, and decrease the chance of an error have been incorporated in the Joint Commission's standards for quality improvement, as well as in related hospital-based initiatives called Lean Six Sigma (a statistical model). These safety standards were adapted from the automobile industry to decrease costs and increase quality during the previous decade.

Prescription for Danger: How Problems Evolve In Dispensing

Keeping with our theme of "back to basics," we switch our focus from the "five wrongs" and turn to the "five rights"—the right drug, the right dose, the right time, the right route, and the right patient. If any one of these fundamental "rights" is violated, the patient cannot receive the correct prescription; the result is a performance deficit, or error. The five rights apply to all health care settings—hospitals, medical offices, clinics, and pharmacies.

Although more than four steps are involved in dispensing a medication in a community-based pharmacy, most of these are a subset of, or a computer program-driven series of, steps rolling up to the first three main MU process tasks (prescribing, transcribing, and dispensing) excluding administration. Nonetheless, the number of dispensing errors made by community pharmacists remains unsettling. An error can occur when the physician "calls in" a prescription or the patient brings in a handwritten paper copy. Fortunately, electronic ordering is rapidly becoming more common.

Properly dispensing a prescription requires an understanding of the five rights as they apply to the individual patient. In a comparatively simple organizational system such as a community pharmacy, most dispensing errors stem from a lack of vigilance in the early stages of the MU process. This can be caused by a lack of attention, being overworked (stress), or being interrupted by other members of the pharmacy staff as well as by patients at the counter. Cognitive errors can lead to choosing the wrong drug from the shelf and labeling the patient's prescription container with erroneous information.

In addition, reliance on computer programs for clinical or regulatory compliance does not guarantee that an error will be avoided. Pharmacists and physicians can still become distracted, such as when they must handle third-party adjudication matters in a telephone call or consult with a patient.

A significant cause of errors remains the pharmacist's divided attention, which often leads to intellectual errors. The great New York Yankees' Yogi Berra said the following about hitting a baseball, "You can't hit and think at the same time."

When filling a prescription, pharmacists must not lose their concentration. Talking with colleagues, answering the phone, or being called away to counsel a patient—each of these activities should be postponed until the pharmacist has reviewed and filled the prescription. Support personnel can be trained to assist the pharmacist in maintaining concentration and an orderly dispensing process to produce a safe, positive patient experience. As in hospital settings, community pharmacies in many states are now being encouraged or required to incorporate quality-improvement practices.

CONCLUSION

As pharmacists and physicians, we should never think that we are immune to making prescribing errors. It is easy to become distracted during our daily practice. If we follow the fundamentals of safety and risk management and perform all steps of the MU process regularly, we can become better at preventing poor patient outcomes.

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